

The National Association of Corporation Schools

Bulletin

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LATEST KNOWLEDGE ON VOCATIONAL GUIDANCE

In this issue of the BULLETIN will be found an article under the title "Selecting Young Men for Particular Jobs," by Dean Herman Schneider of the Engineering College of the University of Cincinnati.

So far as the BULLETIN is advised no one has made greater progress along the lines of vocational guidance, if indeed there be any who have made as great progress as Dean Schneider. We therefore commend to our readers a careful study of this article. Dean Schneider has refused to announce any conclusions until they have been given the "acid test" and while there is universal demand for definite knowledge on the subject of vocational guidance, and while there are any number of persons claiming that they have solved the problem and are attempting to sell to industry plans, systems and various sorts of knowledge on the subject, it is safe to assume that Dean Schneider in his article has given to industry the most authentic knowledge available at this time.

NATIONAL AID FOR VOCATIONAL EDUCATION

National grants to individual states for stimulating vocational education and appropriations for a federal board for making studies and investigations which shall be of use in vocational schools are the chief recommendations made to Congress in the report of the Commission on National Aid to Vocational Education.

A bill which the commission prepared for submission to Congress provides that almost \$50,000,000 shall be distributed for vocational education uses among individual states in the ten-year period between 1916 and 1925. National grants are to be

made for the training of teachers and for part payment of teachers' salaries.

A federal board would handle the appropriations, composed of the Postmaster General, Secretary of the Interior, Secretary of Agriculture, Secretary of Commerce and the Secretary of Labor. State Treasurers would be custodians of funds allotted to states.

MRS. WILSON'S DEATH A LOSS TO INDUSTRIAL EDUCATION

At the time of her death Mrs. Wilson, the first lady of the land and one of the most striking examples of American womanhood, was honorary President of the Southern Industrial Educational Association of the Women's Department of the National Civic Association. Industrial education has lost one of its most earnest advocates, but the work which she had accomplished will remain as an incentive for renewed effort on the part of the organization which had chosen her as its President.

MISREPRESENTATIONS OF EMPLOYERS' ATTITUDE TOWARD INDUSTRIAL EDUCATION

Either through ignorance of the subject or otherwise there is persistent effort to misrepresent the attitude of employers toward industrial education. A dispatch sent out from Washington quotes Owen R. Lovejoy as an authority on the attitude of employers in relation to this subject. Here are some of the things that Mr. Lovejoy is quoted as having said:

"The employers have a very definite program. They know what they want and are going after it. Let us not delude ourselves by thinking they are actuated by philanthropy. It is simply good business. They want a crop of fresh, young labor furnished them every year that can make fewer mistakes and more profits.

"Society is far from having reached a decision that unskilled labor must be abolished. The occupations which, outside of agriculture, absorb the output of our schools are barren of any element to make them of present interest to the child or to offer any hope for the future. A vocational survey in New York City exhibits in one group 101 boys between 14 and 16 years of age, with an analysis of the work they are doing. For only five of them is there any

opportunity to advance or improve; ninety-six are in dead-end occupations.

"Business is now saying that if we had the right kind of schools, all this would be changed; that child labor would become a blessing, instead of an abuse, for children. We are constantly told that, if the schools had the right kind of curriculum and gave the right kind of training, every child would have his natural capacity developed, and we should speedily put an end to the army of industrial misfits.

"It is futile to give special training to a child for the purpose of fastening him to a machine on which he shall do purely mechanical labor for life. Business says, 'Here are the jobs; what kind of children have you to offer?' We must reverse the inquiry and say to business, 'Here are our children; what kind of industry have you to offer?'"

And from another source, the *Times Union* of Albany, New York, the paper owned and presumably edited by Governor Glynn:

"They (the business men) are apt to see chiefly but one angle to the problem—the industrial. What they want the schools to do is to train boys and girls to be expert shop hands.

"That is important, but not all. They would probably be satisfied if the schools were to supply them with as many accurately geared human machines as they need in their business, without greatly caring what they were fitted for beyond wage-earning hours.

"Too much of the talk for better vocational training has this purpose in mind."

In reply to the assumption on the part of the Editor of the *Times Union* we quote the following extracts from the addresses of the retiring President of The National Association of Corporation Schools and also extracts from the acceptance speech of the present President, Dr. Steinmetz.

Mr. Williams said:

"And I say, that while efficiency in specialized application to the particular piece of work is perhaps more of the principal objectives of the features connected with these organizations it is to be remembered that it is but one of the objectives and our teachers should be broadly educated so that they may take broad ideas into the lives of those they

teach. It seems to me the members of our Association and the teachers who will come from the training they get in this corporation work should reach out in two directions. They should endeavor to bring into the lives of those they teach a broad education, comparable at least to a large extent, to the education a man gets or a woman gets through one of our established universities."

And again Mr. Williams said:

"I think modern industry should bring into the lives of the workingmen a better chance . . . it must be admitted that any movement on the part of employers must be avowedly for the improvement of the laborer."

And again Mr. Williams said:

"The element which should be introduced into modern industrial life is the thing our Association stands for primarily. It is education in industry to broaden industry. It gives a man a chance with his fellow who has had an opportunity of spending more years out of an industry and in an educational institution; the man who has had the university education. His chances for becoming economically independent in life are as four to one against the other man."

And again:

"My own conception is that the larger problems of industrial unrest are to be eventually solved by the men who are making a life work of this corporation school movement. I think we should sustain as a principle that so great is the benefit to the employer through development of the condition of the employees that the cost of these schools should be paid by the employers. Attendance should be compulsory and within the time of the employer. I do not know that we favor vocational training or manual training that seems to determine the vocation in later life."

Dr. Steinmetz in assuming the presidency said:

"The great problem before us is the industrial problem. What is the form of vocational training and industrial education they should have? That is the great problem and that is the problem which we contemplate to immediately and energetically work upon. We do not contemplate to solve this problem during the next year or the next following years but we hope to make a small step in advance. We do not contemplate merely to work on this great problem

which modern society will have to solve some time and in the not far distant future, but to have some of the component parts of this problem which are near at hand and which we can carry forward. And so I say that whatever we contemplate doing to-day, and however big it will be, it can be only a small part of a small part of the entire activity which lies before us, which the world requires, civilization demands and which must be done."

Mr. William R. Heath, Vice-President of the Larkin Company of Buffalo, who presided as toastmaster at the banquet of the second annual convention of our Association among other things said:

"We are going home to tone up our own organizations to stand for something we have not stood for in the past and to inspire in our associates effort to come in closer contact with their fellowmen, closer than they have done before. We are further going to interest ourselves in our civic organizations and extend the influence of this organization to the organizations of our towns, and our communities.

"I do not think there will be much difference of opinion if I could ask each of you what the dominant idea running through this Convention has been. It must be apparent to all of us whether we have reference to the papers that were read, the discussions indulged in, the round-table or the conversation which has been going on here during the last hour. It is the emphasis of that human element in business. Whether now or soon—but it seems to me now—we believe that business is not for the purpose of profit, but that profit is a by-product of business, it is that human touch we need, and if we are going to get in closer contact with our fellowmen we have got to learn—if we do not already know—we have got to learn to love him; to wish good things for him, to will right things for him. If I were to forecast the remarks of the gentlemen who are to follow—and I mention this because I wish to emphasize it and wish you to bear it in mind as they speak—I am not afraid to prophesy that the human element will be dominant in what they have to say. There are several great things in the world and in the following the Great Teacher who knew how to teach men, 'We will seek first the Kingdom of

Righteousness and all other things including corporate profits will be added unto it, just so sure as we do not see the 'Kingdom of Right' in business and in human conduct, we will pay the penalty. So I am particularly interested in this Association because of the human touch of its members and of the apparent touch that we have with the men, our associates at home."

Persistent misrepresentation of the attitude of employers can accomplish no good. What The National Association of Corporation Schools stands for primarily is the advance of the United States as a nation through doing things efficiently but more particularly through the development of the individual to highest possible standards. Industry will be satisfied with the by-product.

VOCATIONAL TRAINING

The barber is the only workman for whom there is a really fixed demand in American cities. Analyzing the twelfth census reports for cities having fifty thousand or more inhabitants, the Russell Sage Foundation finds that in every city there are substantially three barbers to each thousand inhabitants. Every other occupation shows greater variability.

Those occupations that have as many as ten representatives for each ten thousand inhabitants in all cities number only twenty for men and seven for women. Without knowing the facts one would probably say that every city would show at least one butcher, physician, lawyer, clergyman, and dentist for each thousand inhabitants; but he would be mistaken. Those occupations are not among the twenty constant ones. The printer, plumber, and baker have steadier jobs in the sense that for each thousand city folks there will be at least one.

The only constant occupations for women—one worker for each thousand inhabitants in all cities—are those of servants, dressmakers, teachers, saleswomen, laundresses, nurses, and housekeepers. All but one of these, it will be noted, have to do with the household or with children—from which those who take the kaiser's view of woman's proper place in the universe may derive much comfort.

Even our vocational schools mostly train youngsters for the jobs they want rather than for the jobs they can get. No doubt that is the right method; but an analysis of the actual supply of jobs is helpful.—*Philadelphia Saturday Evening Post*.

NEW PLAN ADOPTED BY SCHOOL BOARD

W. L. Chandler Presents New System to Educators and Business Men of Mishawaka, Indiana

[Following article is a clipping from one of the local papers of Mishawaka, Ind., but the name of the paper was omitted.]

For some time the plans adopted and recommended by The National Association of Corporation Schools have been under consideration by the Mishawaka, Indiana, board of education. The new plans were brought to the attention of the board principally through W. L. Chandler, of The Dodge Manufacturing Company, who is also a member of The National Association of Corporation Schools. It is being tried successfully in a number of cities, including Cincinnati and Vicksburg. Mr. Chandler has been interested in the special schooling of students looking toward greater efficiency for a number of years and has prepared a number of interesting papers on the subject. The scheme as outlined gives students education in the school room part of the time and part of the time practical education directly under employers in factory, business house and in factory offices.

A meeting of the school board, business men, employers, members of the Business Men's Association and Chamber of Progress was called for last evening in the High school to meet Mr. Chandler, who was made chairman. The meeting was enthusiastic and his plans were highly acceptable, and will in all probability be carried out in the Mishawaka schools.

The Plans Outlined

Mr. Chandler stated that the plan as outlined would take students from the school room and give them employment in the factory, store or office directly under employer, superintendent, or foreman. Two students would be selected for one position and they would receive pay for the work done. The salary would be divided evenly among them, giving each half salary. One week would be spent in factory, store or office and one week would be spent in the school. On Saturday both students would be allowed to work. In this way the efficiency would be maintained and the employee would increase in efficiency as the schooling advanced, and the student would get both practical and theoretical training. In case the student worked in the factory he would be taught factory mathematics, while if he worked in the store or office the studies would fit him for that place.

Practically all of the Mishawaka manufacturing plants have agreed to co-operate with the Mishawaka schools in the new plan, and it is believed that the stores and offices will do the same.

The plan was endorsed by the school board.

COMMENDING VOCATIONAL EDUCATION

Chicago Tribune

Much interest attaches to the fact that the National Education association, at its annual meeting in St. Paul, placed particular emphasis on the subject of vocational education. It is even asserted that the advancement of this important form of practical training is the most prominent activity now in the hands of the association.

In one sense this state of things reveals the rapid development of the subject from comparative obscurity a few years ago. The association is in a measure an index of general opinion with respect to vocational education. Six years ago, at its annual meeting, the association did indeed "cordially indorse the establishment by municipal boards of education of trade schools and evening continuation schools," and further recommended "that the instruction in these schools be practical and efficient and have the advice and approval of the trade interested, to the end that graduates of these schools may at once become advanced apprentices or journeymen."

Now the committee of the association which has been devoting a year's study to vocational training reports that it "bears nearly the same relation to public welfare that general education bears." This does not tell the whole story. The federal commission which recently reported to Congress on the question declared that the national welfare is at stake, and therefore strongly urged the adoption of a broad system of vocational education.

The deep interest that is being shown by school men and women in this necessary development is welcome. Their unselfish assistance and co-operation is regarded by students of the subject as eminently desirable.

A Girls' Industrial School will be opened in Newark, N. J., this fall.

SELECTING YOUNG MEN FOR PARTICULAR JOBS

A Classification of Marked Characteristics which Furnishes a Rational Basis for the Broad Selection of Young Men for Particular Jobs. This is Based on Eight Years' Experience with the Co-operative Work at the University of Cincinnati and Over 500 Co-operative Students. These have been engaged for their Practical Work in Manufacture, Construction and Transportation.

BY HERMAN SCHNEIDER

Dean, College of Engineering, University of Cincinnati

Several years ago two young men appeared at my office to apply for admission to the co-operative course. Although they came together, they were not mutually acquainted, one being from Kansas and the other from Ohio. They were of the same physical build; they had the same facial characteristics; their scholarship records were equally good, and both said they felt an impulse toward mechanical engineering. Both looked like good material. The conversation disclosed no radical or even slight differences in their personalities. They gave promise of being a good "pair" and consequently were sent to the same machine shop.

In due process of events, a co-ordinator from the engineering college called at the machine shop. The foreman said Kansas was satisfactory, but Ohio didn't get into the work. Each time the co-ordinator called, the foreman reported Kansas as most satisfactory and Ohio as more and more unsatisfactory. In a month Kansas was turning out his work with the ease, sureness and dexterity of an old hand, while Ohio was getting a case of nerves, spoiling work and developing fatigue. The superintendent asked us to try Ohio elsewhere, but we decided for a number of reasons to continue him in the shop a little longer.

In the university, however, Kansas was soon reported to my office as utterly hopeless. His scholastic grades were almost zero in all his subjects. He gave no reactions at all in class and laboratory work. His teachers said he was stupid. But Ohio came to his school work with avidity. He was mentally keen and seemed to delight in his work.

Kansas grew nervous over his school work, Ohio thrived

on it. Kansas at school was tired out at 10.30 each morning; Ohio got better as the hours went by. Kansas longed for the rest which shop work gave him; Ohio longed for the rest which school work gave him. Careful tests and conference showed conclusively that Kansas broke under mental work, mental responsibility and self-directed and diversified manual work; but that he expanded in spirit, health and satisfaction under repetitive shop processes which were planned for him. Similar tests and conferences showed that Ohio broke under the strain of directed repetitive processes, and to a lesser degree under self-directed and diversified manual work; but that he thrived when given mental problems and responsibility.

We have lost track of Kansas, but Ohio is happy and successful in commercial life.

There comes to mind another young man, who called one morning and presented a splendid scholarship record from a rigorous high school. He was a most attractive youngster—sturdy, clear eyed and cheerful; but he had not the faintest idea what he wanted to do for a life work. The whole world looked good to him, but no lead I made could discover any particular bent. He smilingly offered to try anything, and finally offered to try everything we had so as to arrive at something by process of elimination.

We started him at foundry work. He didn't like it, so he went cheerfully from one type of work to another for two years, always working hard and faithfully, but without satisfaction, either to himself or to his employers. His school work was excellent except in technical courses. All this time we were taking account of his talents. Certain characteristics began to stand out and one day the question was put to him bluntly: "Blank, how would you like to be a librarian?" His response might possibly be called a grateful unanimous yell. So he is now making progress in a library school.

Cases similar in kind but highly dissimilar in detail to those cited could be given by the dozen. We have found, for example, that some young men cannot grow in all their parts in indoor work and others like it and thrive on it; some must have roving work (such as the railroads furnish), while others are upset by it and are happy only in a settled job; some like to fuss over a little piece of intricate mechanism, while others like a hurly burly task of big dimensions; some chafe under accurate directions, which eliminate personal initiative, while others produce

cheerfully under them; some evade responsibility, while others assume it naturally.

Greatest Efficiency When Work Is Satisfactory

Now a man is most efficient when his work gives him the greatest satisfaction; when he is doing the thing his Creator intended he should do. Every workingman, from the hewer of wood and drawer of water to the research scientist, should get three things out of his work: First, mental and physical development and discipline; second, joy in doing it (or at least satisfaction); and third, a decent living. And the man who has found the job his soul is blindly craving, the job for which he has inborn talents, gets these. But the man whose whole being revolts at his task becomes a captious citizen, an inefficient worker and a meager earner.

Under present conditions our youth blunder into jobs; the gambling odds against their finding work suited to their temperaments and talents are too high, for there are many types of work and usually but one general type will fit any single individual. There is no method or agency to determine the general type of work for which a youth is talented and to classify the various jobs which fall under this type.

Unfortunately, work has been classified heretofore by the materials used or produced rather than by the characteristics necessary for success in it. Thus, if a boy were successful in wood-shop work, he was told he would make a good carpenter; however, wood turning in a shop and outdoor carpentry are dissimilar types, while wood turning in a shop and metal turning in a shop are similar types. The fact that work is becoming more subdivided and more intensified makes the situation more acute, and the problem becomes a national one. A nation, especially a self-governing nation, many of whose self-governors do not get the three returns mentioned out of their work, is not a stable nation.

Every individual has certain broad characteristics and every type of work requires certain broad characteristics. The problem then is to state the broad characteristics, to devise a rational method to discover these characteristics (or talents) in individuals, to classify the types of jobs by the talents they require and to guide the youth with certain talents into the type of job which requires those talents. This is a big problem, but one

possible of measurable solution, or, at worst, possible of a solution immeasurably superior to our present haphazard methods.

In seven years of co-operative work at the University of Cincinnati, we have had experience with about 500 co-operative students. As with the young men, Ohio and Kansas, so with other students, marked characteristics in time stand out. These we have classified, and they now constitute a sort of guide to us in helping students to find themselves. The list is by no means considered as final; future experience will modify it, of course. But it does furnish a rational basis of broad selection.

It is realized also that our work is principally in co-operation with manufacture, construction and transportation; other broad characteristics would probably be listed if we had similar relations with commerce, law, medicine and religion. And since the object of this paper is to point out what appears to us as a rational beginning of vocational guidance, criticism of the characteristics given is looked for in hope rather than in fear.

The Major Characteristics

(a) In many occupations physical strength is an essential; for example in draying, stone-masonry and baggage handling. In others it is not; for example, in book-keeping, telephone installing and piano tuning. Mankind ranges from the almost helpless cripple to the physical giant. We, therefore, have the two characteristics, physical strength and physical weakness.

(b) I have in mind a number of our students who were utter failures at all kinds of work requiring manual dexterity, but who maintained uniformly good grades in all their school work. Their efficiency was all head efficiency. There have been a number also who were hopeless in all their university work, but whose hands acquired skill easily. Their efficiency was all hand efficiency.

The first type might make good designers, inspectors, executives or writers, but unlike the second type would drag out hopeless existences as machinists, molders, masons or piano makers. Of course, most of our students possess both efficiencies. Our experience has taught us that some men are mental and some are manual, while some are both.

(c) There is a type of man who wants to get on the same car every morning, get off at the same corner, go to the same shop, ring up at the same clock, stow his lunch in the same

locker, go to the same machine and do the same class of work day after day. Another type of man would go crazy under this routine; he wants to move about, meet new people, see and do new things. The first is settled; the second is roving. The first might make a good man for a shop manufacturing a standard product; the second might make a good railroad man or a good outdoor carpenter.

Recently two of my students were not doing well; both were getting into a condition of unrest. One was in a railroad shop; he complained that every job was different from every other job, that he was sent here and there, that there was no continuity to the work, and that he was getting nervous. The other complained that there was not enough variety to his work, that it was too confining, that he could not move about and do new things all the time, and that he was getting nervous. We gave each the other's place and both are swinging along and learning most satisfactorily.

(d) There are two broad characteristics which are easily discoverable even in first interviews, the indoor and the outdoor. When a blizzard is raging, the first type likes to hear the roar of the wind because it heightens his sense of protection indoors and emphasizes the coziness of his fireplace, while the other wants to go out and fight his way against the storm. When the rigors of outdoor railroad and construction work are vividly pictured to these two types of young men, one's eyes will light up and his muscles will get tense; the other will compact himself as if for shelter.

(e) We have found two characteristics which are quickly brought out in practical work, but which are not so easily discernible in school work. Some young men naturally assume responsibility; others just as naturally evade it. It is a well-known fact to all superintendents that the most productive workmen often make inefficient foremen, while an inferior producer often makes a good foreman. One man is directive, the other is dependent.

A drayman for a large jobbing house was promoted to foreman of drays, at a substantial increase in salary, because he was intelligent, honest, sober, accurate in his deliveries, careful to a marked degree of his team and dray, and loyal to his employers. In his new position he worried and grew fretful; in time he began to fail physically; finally he asked for his old job, happiness and

efficiency, just about the time his employers had decided that he was incompetent as a foreman.

(f) There are two characteristics which are sometimes confused with those just stated, but which are essentially distinct. For example, we had two students in a large shop working in the planning department; one was fertile in suggestions, but the other usually put them into effect. The first was original; the second was directive.

The man who is original may make a good designer, but unless he were also directive he would make a poor superintendent; he might be a good window dresser, but not a department store manager, a writer but not a publisher, an inventor but not a manufacturer, a reformer but not a mayor. A partnership in which one man is directive and another original is usually successful. Of course, one person may possess both characteristics.

Then there is the man who does only what he is told to do and exactly as he is told to do it. He is imitative. He would dress every window like every other window. He might make a successful milk-wagon driver, since he would have a fixed route and a bottle of uniform size to deliver; but he would probably make an indifferent drayman, since he would not have a fixed route, and originality (or ingenuity) would be needed to load and unload unwieldy boxes and barrels under adverse conditions. He might make a good machine molder, but not a good floor molder; he would probably be successful and happy at a punch press, but not in a toolroom.

(g) Then there are the two types mentioned before, one of which likes to fuss with an intricate bit of mechanism, while the other wants the task of big dimensions—the watchmaker, the engraver, the inlayer, the painter of miniatures, on the one hand; the bridge builder, the steel-mill worker, the train dispatcher, the circus man on the other. One has small scope, the other large scope.

(h) Some men can easily adapt themselves to any environment, while others act the same under almost any circumstances. One takes the local color like a chameleon, the other is always the same monochrome. One is adaptable, the other self-centered; one a salesman, the other a statistician.

(i) There is a distinct type which thinks and then does, in contrast to which there is the type which does and then thinks. One is deliberate, the other impulsive. The northern

aces are usually deliberate, the southern impulsive; one controls its passions, the other is frequently controlled by them. An army of cool-headed officers and hot-headed soldiers is a highly effective machine, but in the civilian walks of life, the impulsive characteristic is negative; that is to say, there seems to be no occupation in which it is a requisite. There are many vocations, however, in which a man must be deliberate.

(j) Our co-operation with a piano-building factory made it necessary to secure men who had a native musical ability—a strong tonal sense. It was found that this was a requisite for success in the higher positions; hence, the music sense is included in this list. Obviously the music sense is necessary to the musician, to the violin maker and to the piano tuner. It should be noted in passing that this is only one of the characteristics needed for the violin maker. He must also be settled, manually accurate and indoor. But the piano tuner must be roving.

(k) Similarly our co-operation with the chemical industries, particularly the ink and paint industries, showed us the necessity of selecting men who possessed strongly the basic characteristic of color sense. It is obvious that this characteristic is necessary also in other occupations, such as house furnishing, window dressing, painting and decorating and theatrical staging.

(l) We learn quickly that some men have manual accuracy and others manual inaccuracy. Where manual inaccuracy is inherent, it is well-nigh impossible to correct it; but where accuracy is inherent and the man is inaccurate through habit, the defect can be remedied.

(m) Similarly we have the two elements: mental accuracy and mental inaccuracy. The former has much the same meaning as the word logical, and the latter as the word illogical.

(n) Certain men are concentrative mentally; they bring all the light they possess to focus on the subject under consideration; they are mentally centripetal. On the other hand, we find men who are mentally centrifugal and who wander from the subject under consideration or flit from one subject to another; they are diffuse.

(o) Some men go to pieces in an emergency; whereas if they were given time to consider the situation they would hold together and act wisely. They possess slow mental co-ordination. The emergency man must possess rapid mental co-ordination. The latter is necessary for success in the base-ball player, the locomotive engineer, the motorman, the surgeon. The former

is usually typical of the philosopher, the jurist, the research scientist.

(p) One often hears it said of a man that he has no push, or that he lacks determination, backbone, grit, sand; other men are said to possess these qualities. The first we call static, which means to cause to stand still, and the second dynamic, which means to cause to move. It should be noted that the noisy man is not always a dynamic man—on the contrary, he is frequently static; while the quiet man is very frequently dynamic.

The list then reads:

- (a) Physical strength
- Physical weakness
- (b) Mental
- Manual
- (c) Settled
- Roving
- (d) Indoor
- Outdoor
- (e) Directive
- Dependent
- (f) Original (creative)
- Imitative
- (g) Small scope
- Large scope
- (h) Adaptable
- Self-centered

- (i) Deliberate
- Impulsive
- (j) Music sense
- (k) Color sense
- (l) Manual accuracy
- Manual inaccuracy
- (m) Mental accuracy (logic)
- Mental inaccuracy
- (n) Concentration (mental focus)
- Diffusion
- (o) Rapid mental co-ordination
- Slow mental co-ordination
- (p) Dynamic
- Static

Danger In Hasty Judgment

Experience has warned us against the danger of hasty judgment; for we have found strong characteristics buried deep under the influence of environment—inborn controlling talents held repressed or stunted by acquired habits of life; and sometimes the habit is mistaken for the talent until patient experimenting or some unusual occurrence discovers the hidden ability. Let it be noted at once that while the characteristics are placed in juxtaposition, it does not follow that one may not be, for example, both mental and manual, or both an indoor and an outdoor man; further, one may not possess either characteristic to any marked degree.

It should be noted also that certain moral qualities, such as bravery and honesty, are not given on this list. While these are, of course, very important characteristics, and while certain jobs require them to a high degree, we have felt that the ethical qualities are not essential for the purposes for which this list was devised.

It is again desired to emphasize the fact that this is an empirical list, growing out of the observations of about 500 young men in industrial work and university work connected with the engineering profession. It is probably too restricted and may not

contain characteristics which are fundamental. For example, we believe that there is another element which is not given and which is not a result of combinations of the elements given. The words "organization sense" have been suggested for it. The idea to be conveyed is something like that of the word "tidy," the natural tendency to keep things in proper and becoming neatness. This characteristic is evidenced in the way men keep their desks, the way they write their reports, and in the general orderliness of affairs within their jurisdiction.

Again, we find among our students two distinct types, one of which does a thing more for the personal satisfaction of doing it than for the immediate or prospective material gain, while the other places the material gain first. One plays the game for the game's sake; the other plays it as a means to a tangible prize. I know a doctor who sacrificed \$10,000 a year to be a research scientist; he is a vocational idealist. I know also a research scientist who gave up a brilliant career to acquire \$5,000 more a year; he is a vocational materialist.

The type of craftsman to whom pride in his product means more than time or money and whose soul goes out through his fingers into the thing he makes, is of the first type; the other type makes the thing to sell at the largest profit. It is probable that most men have these two characteristics in about equal measure; that is to say, while they have pride in their product, they do not let this outweigh the commercial necessities. The sincere reformer is a type of the vocational idealist; the practical politician of the vocational materialist.

To the idealist, the doing of the thing as well as he can possibly do it is the end; to the materialist, the doing of it in such a way as to get the most material return is the end. In extreme cases the vocational idealist will suffer all kinds of privations, and let his family suffer too, rather than be less thorough and better fed. On the other extreme, the vocational materialist will drop any idea which does not pay and take up any which does.

In the fore-part of this paper, three things were mentioned as necessary results of work; two of them were joy in the doing of it or mental satisfaction, and a good living or physical satisfaction. When mental satisfaction dominates a man's work, he is idealistic; when physical satisfaction predominates, he is materialistic. These should probably be placed in the table of major characteristics.

The psychologist may object that these characteristics are not basic, that they are complex in that they are made up of simpler elements. This is true, but the same objection could be urged by the chemist against the engineer's use of the words water, air, wrought iron, steel, brass, wood, granite and cement. And just as the hydraulic engineer uses water, so does the shop manager use mental accuracy or originality; neither is concerned with the more refined science of the basic elements of which the substance or the characteristic is composed.

Of course, the degree or strength of human characteristics can never be measured as can the strength of material things. The mind of even the lowliest man is too subtle a thing to be catalogued. Hence the limitations of vocational guidance. I am of the opinion that for the present, vocational guidance can only point out in which types of occupations an individual will in all probability *not* be successful.

In passing it should be noted that fatigue is not a normal result of a normal day's work. Fatigue results from the doing of work which requires characteristics which the worker does not possess. For example, a man who is roving, original, directive, and dynamic, will become fatigued if he is required merely to sit still, doing nothing at all for several hours.

Characteristics Have Different Meanings

It will be contended, too, that a characteristic, as for example, originality, has different meanings to the artist, the shop man and the department-store manager; that it depends upon the point of view. So it does, just as the quality of wood means a different thing to the paper maker, the bridge builder and the furniture maker. But to each in his own field the meaning approaches a fairly well defined standard.

It must be borne in mind that the results given here have been obtained from young men, whose average age is about 20 years. How many of these characteristics are determinable in children from 13 to 16 years old I am not prepared to say, since I have had no experience with boys of this age.

While the classification given has been found empirically, the working of the principle of evolution is at once evident. Every distinct people possesses certain characteristics, the result of the thousands and thousands of years of conditions peculiar to it. Thus the Chinese are settled, the Arabs are roving, the

Sicilians are impulsive, the Hindoos are deliberate, the Japanese are manually accurate, the Persians possess a refined color sense. If a nation has been a roving nation for several thousand years and then a settled nation for several thousand years, some of its present-day representatives will be roving and some settled.

Any individual's characteristics are probably atavistic. If all the age-long impresses of the past were equally transmitted, all brothers would be alike. When an individual does not possess certain characteristics which he might be expected to possess, it is a case of arrested development of these characteristics in that individual. They are probably latent but inhibited and will appear in his descendants.

CINCINNATI TO TRY GARY PLAN

A modified application of the Gary, Ind., school plan is soon to be introduced in Cincinnati, according to announcement made by School Superintendent Condon.

Dr. Condon's plans follow indorsement given by P. P. Claxton, U. S. Commissioner of Education, to a report on the Gary plan prepared by Prof. Wm. P. Burris, Dean of the Teachers' College of the University of Cincinnati.

Here are advantages which Prof. Burris says the Gary plan offers:

Better use of schools, day and evening, including Saturdays, the year round, making it possible to save large sums.

Possibility of a better division of time between "regular studies" and "special activities."

Greater flexibility in adapting studies to exceptional children of all kinds, thereby diminishing necessity for "special schools."

Possibility of more expert teaching, through extension of departmental plan of organization.

Play Time is Better Utilized

Better use of play time, preventing influences which undo work of schools.

More realism in industrial and vocational work, by placing it under direction of expert workmen, skilled for personal qualities and teaching ability as well as their skill in trade industries.

Better facilities for promotion of health.

Possibility of having pupils do work in more than one grade, and promoting them by subjects instead of grades.

Possibility of having pupils help each other.

MAKING GOOD ON EDUCATION

Omaha News

It is head work that counts.

Dr. S. Hall Young, for thirty-six years a missionary in Alaska, says that of the thousands of frenzied gold-seekers scrambling to get into the Klondike, as a rule it was the educated, often college graduate, who best succeeded. Scaling the lofty, rugged mountains near the coast for an entrance to the interior with food for a year, was a life and death job. Twenty-five thousand tried it, possibly 5,000 succeeded. The mountains crossed and there lay endless stretches of snow and ice up to the Yukon, then on to Dawson. One looked on the pale-faced, flabby-muscled man from the office or the store or perhaps the school room, to whom all this was a new, strange world. But a well-trained, alert mind enabled the man to make good. It was a time for careful thinking and he had learned to think. He succeeded where many stronger men failed.

Why should not education fit men for the severest tests of life? What is it worth if it does not? It may not make good mountain climbers of all or successful gold-diggers, but it should make men thinkers. What does the world need more than men who know how to think! This need is just as great in the mine, the field, the shop, the factory as in the professions. The other day eighty-five young men in a Princeton graduating class indicated their intentions of going into trades and business. It is a good indication. Trades and just plain, every-day business need college graduates and offer them their own rewards, according to their power to make good. Happy the day when more college graduates turn from the already over-filled professions into lines of trade and commerce and agriculture. Of course, the college graduate will not find such easy sailing there in competition with some of the non-college men who are more than making good, but he will find a man's chance.

NO STATE AID FOR COLLEGES

Consolidation of Rural Schools and Establishment of Junior and Senior High Schools Advocated in Vermont

The report of the Vermont Educational Commission has been filed with the governor. It is in the form of a massive bound book of more than 284 typewritten pages and is based very largely on the report of the Carnegie Foundation, which is made a part of it, but the commission's report goes even further in its findings and recommendations.

Reduced to the fewest possible words, the findings of the commission are as follows:

Commission's Findings

Teaching in rural schools unsuitable for daily life of pupils and mostly preparatory for secondary schools;

Secondary schools still more unsuitable and mostly preparatory for institutions of higher learning, and therefore of benefit to but one-tenth of their pupils;

Length of school term insufficient;

Lack of adequate vocational training for pupils and efficient normal school training for teachers;

Insufficient emphasis on agriculture;

Appropriations to institutions of higher learning too large according to State's property valuation;

Duplication of effort in U. V. M., Middlebury College and Norwich University, which are declared to be private institutions and not entitled of right to any State aid.

Recommendations

The recommendations of the commission are similarly condensed as follows:

Consolidation of rural schools;

Establishment of junior high schools in every town if necessary to provide for pupils from twelve to sixteen years of age, including the seventh and eighth grades and the first two years of present high school course;

These junior high schools to teach commercial subjects, domestic science, manual training and agriculture, to the end that they may be "finishing schools for life" in case the pupil goes no further;

Establishment of as many central senior high schools as the number of pupils shall demand, the curriculum to include special vocational training as above and also high-grade courses for pupils from seventeen to nineteen years of age who may be fitting for college;

Abolish Incorporated Districts

These senior and junior high schools to articulate directly with each other for the purpose of increasing the percentage of pupils who take advanced studies;

Increase school year to thirty-six weeks, which is about the average of the country, thus adding nearly two years to present length of schooling;

Dissolve all specially incorporated school districts (thirty in number) and bring all schools under the general law;

Instruction designed "to educate youth toward the occupations of the communities in which they live." This is the keynote of the whole report.

Strengthen staff and equipment of State agricultural school, increase appropriation and add manual training;

No State Aid for Colleges

No financial aid to University of Vermont, Middlebury College or Norwich University until State has perfected its full constitutional duty to public schools, and then only in return for some specific service;

On the theory that teachers trained within the State are more valuable than those trained without, State appropriations to be expended by the State board through arrangement with the State agricultural college to train teachers for teaching agriculture in the junior high schools; also by arrangement with Middlebury College to train teachers for teaching the higher courses in the senior high schools;

Co-operation in federal extension work in agriculture;

Discontinue Two Normal Schools

Discontinue normal schools at Johnson and Castleton; and develop training courses in secondary schools to train teachers for elementary schools and earlier years of junior high school.

REPORT OF THE EDUCATIONAL COMMISSION

Rutland Herald

Practically every taxpayer of the State will agree with the findings of the educational commission, even though they may be disposed to question the recommendations as they apply to their local interests and enterprises.

That the teaching in the public schools has been unsuitable to the practical needs of the pupils in their future capacity as citizens of the State will hardly be questioned even by the professional theoretical educators who are mostly to blame for the situation.

That the present elementary and high school system has tended to educate children away from the farm is also unquestioned, while it has long been a notorious fact that a boy must needs commit some crime or misdemeanor to be admitted to the most practical training school in the State—the industrial school at Vergennes.

The language of the commission is particularly happy in this respect. It says:

"The instruction in the public schools to be of that character to educate the youth toward the occupations of the community in which they live."

Much of the material included in the report is based on the survey of the Carnegie Foundation, which is already familiar to readers of State newspapers, but undoubtedly a vigorous discussion will be inspired now that the commission has formally adopted the salient features of that survey and based positive recommendations thereon.

When the legislators of the State come to pass on the report as a whole, they should not be influenced unduly by local and special considerations, but should consider the situation as it affects the State as a whole.

Rutland County, for instance, is peculiarly concerned and more or less alarmed at the proposal to discontinue the normal school at Castleton, an institution in which we have a just and reasonable pride, but if it appears for the benefit of the State at large to discontinue both Castleton and Johnson normal schools, then the benefit of the whole system and not of Rutland and Castleton alone should be considered.

Some misapprehension may be expected in regard to the

University of Vermont, Middlebury College and Norwich University, and it should be borne in mind that the proposal is not necessarily "no State aid" for these institutions, but payment by the State for certain specific services, such as training teachers in agriculture at Burlington and in pedagogy at Middlebury.

The proposal to train teachers for the elementary schools in the senior and junior high schools may also strike the conservative Vermonter as a radical departure, but some of the best teachers in the passing days of the old red schoolhouse were first the "monitors" of their classes, then assistants to the teacher in "hearing the lessons" of the little ones, then, after a fair high school or academy course, "specially licensed" to teach, thus learning the rudiments of teaching by actual experience in teaching.

There have been less practical and efficient systems.

There will be no manner of doubt, also, regarding the proposal to train Vermont teachers in Vermont, especially to teach Vermont agriculture.

Governor Fletcher has announced that the entire report will shortly be published in pamphlet form. It should be placed in the hands of every editor and every legislator-elect in plenty of time for the January session of the Legislature.

The report should also be read and carefully considered as the last word on Vermont educational conditions, (1) by the experts of the Carnegie Foundation, and (2) by the business men and public servants who have given a very large amount of time to its consideration.

NO AGRICULTURAL SCHOOL

Rutland News

Because the members of the Vermont Educational Commission in their report, recently filed with Governor Allen M. Fletcher, recommended one efficient agricultural school only in the State of Vermont—that now at Randolph—the bill passed by the last legislature appropriating the sum of \$20,000 for the establishing of such a school to be located in Rutland or Addison County is of no effect, in all probability.

Rutland County has laid claim to the proposed school for the especial reason that a farm with buildings had been offered for the purpose in Middletown Springs by Henry C. Copeland of New York, formerly of Middletown Springs, and the Rutland

Business Men's Association, as well as other similar organizations in this section, have been particularly active in promoting the project to secure the school for this side of the State.

The legislature, besides naming the sum of \$20,000 for the establishment of the school, also appropriated an annual sum of \$10,000 for the maintenance of the institution. This fund is automatically withdrawn if not used before September 1, 1914, and as the educational commission has negatived the idea of several agricultural schools for the State, nothing more will probably be done about the school for the State, nothing more will be brought before the legislature.

NEEDS OF KENTUCKY LIVE STOCK EXCHANGE

The Live Stock Exchange recently organized by the Extension Department of the Kentucky Agricultural Experiment Station has made a very auspicious beginning at listing stock for sale and also at getting in touch with prospective buyers of live stock. By way of explanation to those not familiar with the workings of the live stock exchange of the Experiment Station, the following statement might be made. The Extension Department of the Station was organized to devise efficient means of carrying helpful information to farmers, and otherwise operating to improve the condition of the Kentucky farmer. Among the activities engaged in by this department have been the issuing of special press notices, conducting short courses both at the Agricultural College and in various places over the State where the interest is great enough to warrant it, the organization of farmers' and breeders' associations, conducting educational agricultural exhibits at county and other fairs and exhibitions, the conducting of boys' encampments, etc. for agricultural instruction, the installation of county agricultural agents, the organization of boys' and girls' clubs, the organization and systematic instruction of clover and alfalfa clubs, demonstrations in reclamation of wornout soils, itinerant advisory work, the rejuvenation of old orchards, spraying and pruning demonstrations and general horticultural improvement work, the building of barns and silos and general dairy improvement work, the introduction of agriculture into schools, and other such enterprises too numerous to mention.

One of the most recent undertakings is the above mentioned live stock exchange which acts as a medium for those who wish to buy and sell. No fees are charged. No responsibility is as-

sumed by this department, as its only effort is to put the prospective buyer and seller in communication, leaving them to make their own trade.

TRADE EDUCATION BY MOTION PICTURES

All Branches of Industry Are to Be Illustrated by Films and Slides, Supplied for Free Exhibition

Industrial education by motorgraphs, as free as the air to all who want a better insight into the production of things to eat and wear, or which otherwise enter into life's necessities and comforts, is to be furnished by the Bureau of Commercial Economics, whose office has just been established in Philadelphia. By means of motion pictures the various stages of manufacture in many lines of industry will be portrayed. In the silent, universal language of the picture youth may read that which is intended to aid in solving the perplexing problem as to the vocation for which an inspiring artisan's talents best fit him.

Francis Holley, director of the Bureau of Commercial Economics, describes it as an association of manufacturers, producers and transportation lines in this country and abroad to engage in disseminating industrial and vocational information. It is being maintained through endowment and annuities and is said to be purely philanthropic.

Philanthropy's part in the maintenance of this new department of education is evidenced by statements in the literature of the bureau that it does not accept any remuneration for the exhibition of any slide or reel, and that no expense is involved for any institution to whom the lecturers or reels are sent. They are available, however, only when admittance to the public is free.

The secrets of every phase of agriculture, mining and smelting ores, propagation of fruits and vegetables, and the entire gamut of the animal industry are to be illustrated by motion pictures. The production of clothing, from shearing the sheep or picking the cotton, through the carding or combing and ginning processes; spinning, weaving and cutting the cloth, will be shown. The making of a watch, its wheels so magnified on the screen as to show the movement of every cog, will be fully explained in the picture language, and scarcely any line of industry is to be overlooked.

GERMANY'S EDUCATIONAL REFORMS

Cities Establishing Schools Where Occupations Are Taught

BY STEPHEN ASPDEN

Germany is modernizing her education. A great movement is on foot to democratize universities; to increase specialization, and to bring into the curricula the live, pulsating problems of our new civilization which universities have hitherto ignored. Beside this goes a movement for the scientific teaching of trades and occupations which have hitherto been learned by rule of thumb.

The municipal men, who are the most active, most creative of the empire's social workers, are determined to get a grip on university life, and to undermine the authority of the academic, dry-as-dust scholars. The movement is spontaneous, independent of legislatures and of education ministers. In most states, particularly in Prussia and Saxony, officialdom distrusts change, and Prussia's present Minister of Cults, Herr von Trott zu Solz, is actively fighting the reformers. But the reformers are making way, and the old universities, being threatened with competition, are yielding reluctantly to the inevitable.

City Universities

The most notable feature of the movement is the ambition of municipalities to start up-to-date universities which will be under their own control and can be run on modern and ultra-specialist lines. In law, the municipalities have nothing to do with higher education, which is a State affair, but under municipal constitution towns are practically free to follow their own social impulses, and already many special high schools are under municipal control. The municipal ambition is to enlarge the programs of these special schools, and to get them recognized as universities. About a dozen plans are under discussion.

The leading towns are Hamburg, Frankfort-on-Main, Cologne, Dresden and Posen. Other universities are planned by small towns, among them Altdorf, Wittenberg and Helmstedt. These had their own universities in the past, and want them revived. There is a strong movement for the removal of universities from the great cities to small cities, and even to the country. But the first motive of the municipalities is the belief

that they can organize a better and more modern education than is given by the present universities, the chief service of which, as expressed by Hamburg's Mayor, is that "they produce every year 5,000 doctoral theses."

Plans Are Liberal

Municipal university programs are all up-to-date. They reject the faculty of theology without which no existing German university is complete, and they have liberal plans for teaching social and political science, art history and art criticism, journalism, commerce, municipal administration and other things which the old universities try to exclude.

The municipalities also want greater specialization. They are not content with the increasing specialization and differentiation of science itself, and with the appointment of special professors for every newly recognized department of science.

They want the universities themselves to be differentiated. There should be universities in which classics predominate, universities predominant in natural science, universities with a primarily legal and political scientific character. Each university would have a specially good library and collections bearing on its special subject.

Each from Its Kind

Formerly Prussia's education ministry was friendly to this movement, and set about giving to Gottingen a predominantly scientific character. Of late the tendency has changed. The present education minister holds that if university programs be exaggerated in one direction the universities will decay to the level of special high schools.

The towns think otherwise. Their aim is to build up universities around already existing high schools or academies with the intent that each new university shall take its predominant character from its nucleus. Frankfort-on-Main's new university, which will be opened this autumn, has this character. It is built around the existing academy for social and commercial science. Frankfort-on-Main has spent \$2,000,000 in enlarging this institution. The new university will be predominantly sociological.

Hamburg's new university, the creation of which has been temporarily checked by an adverse vote in the *Burgerschaft*, is

to be predominantly colonial. Its nucleus is the local colonial institute, which was started six years ago.

Dresden has got ready \$4,500,000 and valuable land sites for a new university, the nucleus of which are to be the existing technical and veterinary high schools. Dresden aims at laying out an entire university quarter on the outskirts of the city, which quarter will realize the "ideal university town of the future."

The plan is being retarded by the jealousy of Leipzig, Saxony's only other university town, and by the hostility of the education ministry. This hostility springs from the fear that municipal universities will be dangerously independent of the Government, and may become centres of democratic, even of socialistic, propaganda.

Civic Reformers Approve

Only after Kaiser Wilhelm personally intervened did Frankfurt's municipal university get Government sanction. The parties in power particularly resent the exclusion of the theological faculties, and Kaiser Wilhelm's friend, the theologian, Professor Adolf Harnack, is vehemently opposing this new ultra-modern trend.

Civic reformers are in particular zealous for municipal universities, because they object to the complete ignoring by existing universities of municipal science and practice. Prussia's two greatest universities, Berlin and Bonn, give no municipal instruction at all.

Just now municipalism is jumping ahead rapidly. Its sphere is being enlarged by widespread municipal trading, and its reputation as work for ambitious men has risen, owing to the revulsion among the abler, more active Germans against high politics.

Seek Higher Training

The city of Cologne has now opened what is practically a university of municipalism, the first of its kind in Europe. This is the High School of Communal and Social Administration, which gives special municipal education to civic officials and candidates. The aim is to rescue municipal government from academically trained doctors of law, who at present monopolize the higher branches of the service, much to the service's loss.

The program includes social politics, housing and land questions, the labor problem, municipal law, municipal taxation and finance, school law and practice, building, public charity, statistics, care of children, and all other things which come within a municipal official's sphere of work.

The course of study comprises at least one winter and one summer term. Students are mostly young men who have completed the usual juristic training at the ordinary university, but have realized that this training is insufficient for the work of political and social administration. Also among the students are many officials who are trying to make up for the lack of past training. Germany's ablest burgermeisters are among the lecturers.

From the first, the students are put to practical work, and are required to collaborate in the municipal administration of the city. When their course of education is finished they know more about the science and practice of municipal administration than do many senior officials.

Many of the more active reformers are not content with this specialization of higher education. They declare that the programs of the special and technical high schools are not sufficiently comprehensive.

Seek Larger Sphere

These high schools are Germany's greatest educational achievement. In number of students tremendous progress has been made. In 1882 the empire's eleven technical high schools had 2,800 students. To-day, including auditors and "guest auditors," both of whom have only partial student qualifications, there are nearly 18,000. This means that the State has done enough for technical education in the narrow sense.

The modernizers want the sphere of special high schools enlarged beyond the merely technical. They hold that there should be preparatory high schools for practically every occupation that exists. The definition as expressed by the South German Educational Congress is:

"The State must aim at the diminution of economical waste by insuring that all occupations, however mean, shall be practiced by men who have been trained to do their work scientifically."

As the State shows no sign of doing this, the municipalities are setting to work. Berlin got a start with ten special "fachschulen," attendance at which is compulsory on young men and women

after they have left the elementary public schools. Most of the special subjects taught are recognized trades which are subject to fixed laws. Since then Berlin has branched out into the teaching of all sorts of loose and unorganized occupations.

The municipality has just opened a college for saleswomen in stores, and here, for most classes of girls employed in or apprenticed to Berlin stores, attendance is compulsory. Already there are 1,500 students. These are taught how to attend on customers, how to keep goods in order, how to dress windows, the technical characteristics of products, and even the insidious art of blarneying the public into buying what it does not want. In other German towns are nine such saleswomen's colleges. The Berlin school, with its forty-nine classes, is the biggest.

Neglected Occupations

Provincial German towns are starting colleges of preparation for other neglected occupations. Dusseldorf will open an academy for the hotel sciences, which will rivet still more firmly on Europe's neck the yoke of the German hotel manager and hotel waiter. From other towns come plans to start municipal schools of journalism. All these plans illustrate the trend toward specialization in every branch of life which is so marked in Germany.

Both these movements, the university reform movement and the movement for teaching the occupations, as well as the technical trades, are strongly opposed by powerful interests. The old universities complain that the municipalities ignore the very nature of university education, which is universality, and they predict that the new municipal universities will only be exaggerated special high schools, useless for general culture. Against high school teaching for the non-technical occupations there is great opposition. The objectors declare that the new schools pursue the false principle of reducing to rule and precept things which are outside the domain of teachable science. The municipalities ignore these objections, and are going ahead with their plans.

"If education is not practical; if it does not fit the student for some actual mission in life, that education is worthless," declared L. A. Wilson, New York State specialist in industrial education, in an address at Rochester.

"CHILD SLAVES"**Not 2,000,000 Working in American Factories and Industries**

To the Editor of the New York Times:

I have read the letter to *The Times* from Owen R. Lovejoy, General Secretary National Child Labor Committee, taking you to task for saying a good word on the effectiveness of the movement in this country to prohibit the working of small children in factories, mines, and mills. I did not see your editorial article, but I was certainly amazed at Mr. Lovejoy's letter. In the first place if, after all the effort and money expended by the National Child Labor Committee, aided by the trade unions, the women's clubs, and other humanitarian organizations, in the last fifteen years, there has been no progress, as Mr. Lovejoy tries to imply, then that organization should acknowledge its failure, retire from the field, and let some one else "get on the job." At any rate, it would have no right to continue to call upon the public for funds to carry on its work.

Mr. Lovejoy says in his letter: "Although the United States has made progress in protecting her children, the existing 2,000,000 odd child workers can scarcely be overlooked, and I am sure none of your readers will feel that we are yet very far 'advanced' in the way of child labor reform." Now, I want to make a general statement about this "two million" obsession which, starting from 1900, continues with Mr. Lovejoy to the present day. It is that there never was a more dishonest use made of the United States census figures than that which has been made of them by the Socialists and their sympathizers in the matter of child labor, and the National Child Labor Committee is nearly as guilty in this respect as Debs and the Socialist Party. After the 1900 census one talked of 2,000,000 little wage slaves under 14 years of age in factories, mines, and mills, and the other talked of 4,000,000 of such little wage slaves, while the fact is, as was shown by that census so plainly that no honest person with a thimbleful of brains could fail to discover it, that two-thirds of the total number of children employed, which was in fact 1,765,000 and not 2,000,000, were in agriculture, on the farm, and not in "factories, mines and mills," and that three-fourths of the remainder were over 14 years of age, the limit fixed by the model bill drafted by the National Child Labor Committee itself in 1905. In other words, as shown by the census

of 1900, instead of 2,000,000 children under 14 years of age being employed in factories, mines, and mills there were in all the non-agricultural occupations together just 186,358 children under 14 years of age; too many, to be sure, but neither 2,000,000 nor 4,000,000. By the 1910 census, the figures of which have just been made available, the number of children under 14 years of age employed in all gainful occupations outside of agricultural pursuits has been reduced to 95,839, or, in other words, from 1900 to 1910 there has been a reduction of 50 per cent. in actual number, without taking into account the natural increase in population, which would make the percentage of reduction larger.

It certainly is gratifying to find that in the mining industry, the figures for which show that in 1900 there were employed 9,000 and in 1910, 2,493 children, the reduction is over 72 per cent. in the ten years. In the glass industry, the employment of children in which has been so much exploited by the radicals, there were in 1910 just 449 under 14 years of age employed, as against 1,433 in 1900. In the cotton mills, where the employment of child labor, especially in the South, has been the slowest to yield to the assaults of all humanitarian people, the number of children under 14 years of age has been reduced from 19,000 in 1900 to 11,811 in 1910.

Since 1910 more States have enacted child labor legislation and the administration of child labor laws has become more stringent, so that a census to-day would probably show that the number of children under 14 years of age reported in 1910 as employed in factories, mines, and mills has been reduced by one half, and by the time the next census is taken it is likely that there will be no children under 14 years of age working in non-agricultural industries in the United States.

Haverhill, Mass., Aug. 12, 1914.

F. G. R. GORDON.

At Hartford, Conn., from 150 to 200 more pupils enrolled in the Commercial High School this year than was expected. Chairman Traut recommended they be authorized to increase the size of the new prevocational school at a cost not to exceed \$131,000 exclusive of heating plant and equipment. This will give 100,000 cubic feet more and give accommodations for a total of 1,100 pupils. Mr. Hatch said at the rate of the present growth the building would be full in six years.

**RICHMOND LOCAL CENTRAL TRADES COUNCIL
ADOPTS RESOLUTIONS OF APPROVAL**

Vocational training in the public schools was the chief topic under discussion at a recent meeting of the Central Trades and Labor Council of Richmond, Va. The question came up on the report of a committee which had been appointed at the previous meeting of the body to investigate the subject. The committee in its report proposed a set of resolutions endorsing the idea, which were unanimously adopted by the Council. The resolutions are as follows:

"Whereas, the American Federation of Labor has recognized the need of industrial education and recommends the establishment of industrial schools under the supervision of public school boards and committees consisting of representative employers and employees; and

"Whereas, this body being a branch of the American Federation of Labor concurs in those views; therefore, be it

"Resolved: First. That this body pledge its assistance in securing the desired information necessary to determine what may be done to best promote the interests of the workers in this respect.

"Second. That a standing committee of five be appointed from this body to confer with the vocational survey committee before any definite action is taken in regard to vocational courses in the public schools of Richmond.

"Third. That the delegates to this body be instructed to report to their respective locals, the action taken here and request that the local unions render whatever assistance that may be necessary to promote the collective and individual interests of all.

"Fourth. That a copy of these resolutions be forwarded to Mr. Charles H. Winslow, vocational survey director, and that they be spread upon the minutes of this meeting."

The committee drafting the resolutions was continued as a permanent committee on the subject.

In submitting the first report of the Division of Medical Examination of school children to the school board of Rochester, N. Y., Dr. Joseph C. Palmer, health director, recommended immediate action in engaging two dentists to devote their entire time to the school children of the city and also the creation of special classes for mentally deficient children.

AGRICULTURE IN COUNTRY SCHOOLS

F. Mason Crum, County Agent, Describes New Step for Agricultural Advancement in South Carolina

BY F. M. CRUM

The man who has taught in the common schools has more than once been embarrassed by the lack of practical work done in his school. The question arises this way: a patron says that he does not understand how Latin and algebra will help his boy to make a successful farmer or business man, and that he would rather he drop these subjects and take up something that would do him more good. Of course the teacher did not agree with the father. But was there not more in that remark than the farmer was given credit for? There was felt a pressing need for something in the boy's education that bore more directly upon life and living.

The city schools have felt the same need and have resorted to the work shop, giving the boys training in simple carpentry and machinery. Industrial work in connection with public schools seems to be assured. Manual training has become a very important part of the city schools program.

But what about the rural school? Can it afford to leave out the industrial part of education? The question of agriculture in the school is no longer disputed. The South is primarily an agricultural section, and the majority of its citizens make their living on the farm. Besides, agriculture is basal, and no society can live without it. The business of farming is at the foundation. We feel safe in saying that any system of education, carried on in an agricultural district, that does not recognize this fact falls short of its mission. An education that does not teach people how to live better has not a very worthy aim. An education that leaves out the primal occupation of a people can not do much to elevate that occupation. If we must farm to live, then we must dignify the business of farming, and if it is fundamental, then it is worthy to be yoked to our educational program. A great part of life is practical, therefore, a part at least of our education must be practical.

Demonstration Field

The demonstration field seems to be the answer to this question of practical education in the country. Here the course

in agriculture taught in the schools takes on real life, and when the pupil studies legumes, for instance, he has the chance of seeing the things grow. The demonstration plat is the country school's laboratory. Books then become real, and the boy finds that the search for knowledge is not altogether dry and uninteresting, but is rather a vital process and requires work of hands and brain. Here at spare moments he learns how to select seed, how to start a breeding patch, how to fertilize intelligently, how to improve soil, methods of cultivation and a dozen other things which will make him a more useful citizen and a better educated man.

A successfully operated demonstration field helps the school in many ways. In the first place it turns the attention of patrons to that school. They begin to cultivate a kind of school patriotism, lest they fall into disrepute as indifferent supporters of a community institution. The fact that they send their plows to the field to cultivate the crop keeps up the interest, and they want to see results from their efforts. Whenever the attention of a community can be focused upon a school, that school will begin to do definite things.

The teacher must be interested, or be left out. He sees more of the patrons and they see more of him. The boys work with their fathers, and when the teacher, the superintendent of education and the farm demonstrator all get off their coats farming takes on an added interest. The school house becomes a centre for improved methods and occupies a more respected place in the community than ever before.

Then again, as has been done in Orangeburg county, the teacher takes the boys on Friday afternoons and has drills in working out fertilizer formulas. Mathematics takes on new life and the boys find that there is at last a use for it. When a school boy goes home and tells his father what kind of fertilizer he is using and what per cent. of each, that father begins to realize that something effective is being done. Simple exercises may be given in measuring land, and the pupils required to divide the plat in acres for planting. Ample opportunity is also had for studying soils, adaptation of fertilizers to particular kinds, questions of drainage and preventing land erosion by terracing. This can be done by the demonstration agent co-operating with the teacher, and where the teacher has had no such training, the agent can do it himself at regular visits.

Again, farm work in connection with a school dignifies labor,

lifting it to a higher plane, and giving it a chance with the professions. It is no longer a work that can be done equally well by ignorant and unskilled men, but is a task that to be done right demands intelligence and sound business judgment.

Helps the Community

And then, the reflex on the community is not to be overlooked. If a school is successful in its demonstration work, the community must benefit by the success. In the first place, it stimulates a community spirit, and the patrons are made to feel more keenly than before that there is a common interest and a common purpose to which they are all moving. The possibility of cementing a community about a school farm is unlimited.

Secondly, it brings into that community the spirit of improved methods. A school demonstration plot must be up-to-date and must practice every method that is most efficient and most economic. It must show the advantage of pure varieties of seed, best methods of cultivation and greater yields by improving the soil. School demonstration work is a step in the direction of better farming and the community will catch the spirit.

The possibility for teaching home sanitation is unlimited. The fly and the mosquito will be brought to mind as the common enemy of the community, and very effective work may be commenced at the school house for eradicating these human pests.

The community is benefited also by having farmers' institute and educational rallies at the school, for it is at the demonstration school that these meetings will drift. There they have an interest already aroused, and the department is always ready to push forward the work where it is appreciated and where it can most effectively be done.

How It Is Done

The two factors most important in organizing school demonstration work are the county superintendent of education and the teacher. First of all, the superintendent of education, for without his moral support, at least, the work will always be hampered. The teacher is next, and when once he catches the idea of what can be done, he will in nearly every case be a very ardent supporter. Without the support of these two factors the work can be laughed out the school in a short while.

The educational forces are in sympathy with the program, and have given it their hearty approval, and besides have done very effective work in many instances. The success of school demonstration work in Orangeburg county is in a large part due to the hearty co-operation of L. W. Livingston, county superintendent of education. As a result of this support, the teachers are interested and are in every instance glad to do what can be done to better the situation.

The next step is to secure at least three acres of land near the school building for the demonstration plot. This may be done in various ways. We are to learn more about this later, but at present, the best method to adopt, if the school is not able to buy the land, is to lease it for a stipulated time. In most cases this can be done without payment of rent. In nearly every instance there will be enough interested patrons to furnish the land for the school. Several of the plats in this county need to be improved more than anything else, and it is an investment for the land owner to allow the school to use it for a few years free of cost. If rent is demanded, it will not amount to much for such a small plat.

Three Year Rotation

We are practicing a three year rotation on the school fields in this county. This year, however, we have decided to only improve the soil on two, and postpone the regular rotation for next year. For several reasons this was thought advisable.

Last fall all of these plots were sown in vetch and oats. The vetch seed were inoculated in each instance, and on the average were fairly successful.

This spring we cut one acre of the vetch and oats for hay, and turned the other two and planted corn and cotton. When the hay is removed the acre will be put in cow peas or soy beans, or both, for a summer crop. Whether this will be turned this fall or cut for hay, will depend on the fertility of the soil and other minor considerations.

In one instance we succeeded in putting in the acre of corn as a breeding patch. One ear was planted to the row from select corn. This fall these rows will be gathered separately and weighed, and seed saved from those rows which make the heaviest yields. Later on, we expect to take up other points

in selection, and the boys will be required to go into the field with the agent and assist in the work.

By this rotation of crops, any one crop will not be grown on the same acre oftener than once in three years. Besides, there will be several cover crops intervening, and it is in this way that we hope to build the soil while it is producing. In September after the first or second picking of cotton vetch will be sown in the middles to be turned next spring. Cow peas will be put in the corn after laying by time.

This is by no means the easiest part of school demonstration work. It is a problem to care for even as small a field as three acres, when the labor has to be furnished by the patrons of the schools, gratis. The demonstration agent must be very tactful, and use whatever method the situation calls for in getting labor for cultivating the crop.

First of all, have a committee of patrons most interested in the work, and explain to them that the work is to be done on a co-operative basis and that it is for them to see that it is properly engineered. They must be made to feel the responsibility to a large degree, and a good committee can save the work from failure. This committee should be selected with the assistance of the superintendent of education and the teacher. They know the men better and know whom the school can depend on for service. In every community there are always some men who are willing to help, on the other hand there are always some who are very reluctant in giving any assistance. Just as the work of the world is done by a few men, so school demonstration work must depend for its main support on a few earnest patrons. It is around this nucleus that the demonstration agent must gather all the forces he can and from it build a better organization and a livelier interest.

In having the work done, name some day on which the patrons can conveniently come to the school, and have them bring their teams and implements and the work can be done speedily. There is a distinct advantage in having them meet together on the same day. There is a friendly rivalry in bringing out good teams and up-to-date machinery, valuable ideas are exchanged and a friendlier feeling established among the neighbors of the community.

We have made it the custom to meet early for working. Besides exhibiting a spirit of industry, the work is done in the most pleasant part of the day, and not so much time taken from

the regular farm work. The school also does not lose time by the early start.

It is also important to have everything in readiness when a work day is named. The fertilizer must be on hand, and the seed selected, and assurance that a sufficient force will be present to carry out the morning's work. If seeds are to be inoculated, there will be no better opportunity offered for such a demonstration than on the school field. A most valuable opportunity is also offered for explaining the advantage of nitrogen gathering plants.

The photographer plays no little part in organizing school demonstration work. It is well to let it be known that a picture is to be made of the school force at work. It adds interest and is one method of advertising. The superintendent of education keeps the pictures in his office, some are hung in the school rooms, people begin to talk about them, and the work grows in prominence.

Lastly, the success of the school work depends mainly on the common sense and judgment of the demonstration agent. No definite rules can yet be given for having it done. The project is advertisable, even urgent. The educational forces heartily approve of it, and when the school patronage begins to believe in it, as they surely will, the success of the work must be assured.

EDUCATION AND HEALTH

Speaking before the department of child hygiene of the National Educational Association, Dr. Louis W. Rapeer of the New York Training School for Teachers advocated education as a means of eliminating "enormous national financial loss" due to ill health.

"The average workingman's family has an economic loss of between five and fifteen per cent. of the annual income, due to ill health," Dr. Rapeer said.

"The principal method of eliminating this waste is through education. As a preparation for industrial efficiency, no phase of general or of direct vocational training ranks higher in importance than health education.

"Yet we have given little or no attention to this matter. Educators clamor for forges, work benches and other costly equipment, but fail to furnish this most vital vocational preparation."

PLAN FOR TRADE SCHOOLS GROWS

Labor Editor, at Spokane, Tells of Great Need for Vocational Training

As a result of the participation of organized labor in the conference called at Tacoma, Wash., June 25, by the State Commission on trade and vocational education, State Superintendent of Public Instruction Mrs. Josephine Preston increased the membership of the commission from five to seven, and appointed H. L. Hughes, of the *Spokane Labor World*, to represent labor on that body. Mrs. Preston announced that she would later appoint some one to represent the employers.

The conference was called by the commission and Mrs. Preston for the purpose of getting at the general views of the public as to what is really needed in the way of vocational and trade education in the State. Some fifty prominent educators, laboring men and employers responded. All agreed that practical education should be provided for in the public school system, and that while the State has already advanced far along this line, that more advanced steps should be taken at once. No definite action was taken, but the commission has under advisement the many suggestions offered and will meet again in October to formulate some plan to be presented to the next Legislature.

President Marsh spoke of the present-day condition of apprenticeship in industry, and stated that H. L. Hughes had been selected to present the subject of "The Value of a State Trade School" on behalf of the State Federation of Labor. Hughes' paper created a favorable impression, and the commission requested permission to have it published in pamphlet form in furtherance of the movement for vocational education, which request was granted. The paper, in part, contained the following:

State Trade School Needed

"Labor desires that every child in America shall have the fullest possible educational equipment, cultural and practical, to give it the highest efficiency to do its work in our complex social and industrial life, not alone that the child shall merely become an efficient producer, but that it shall enjoy the satisfaction, delight and inspiration that springs from the most highly developed intellect, balanced with the assurance that it has such

practical vocational and trade training that it can stand on its own resources in every emergency of life equal with every other human being so long as health and limb are unimpaired. A child so equipped may be safely trusted to find ways to hold its own, and will always be an asset to and never a burden upon society."

INDUSTRIAL TRAINING

How the System Has Spread Rapidly

The rapid spread of free industrial education in many States is one of the factors which, by the leavening of all ranks, is making for industrial peace. With the help of free teaching in his chosen vocation there is a chance for every man to reach the top. When a man has a chance to reach the top he is less apt to attempt to pull the top down to his level.

Six States in the Union have established State systems of industrial education and contribute State moneys to its furtherance. They are Indiana, Massachusetts, New York, New Jersey, Pennsylvania and Wisconsin. The Government of the United States may be said to have free vocational education in one of the branches of its service. In a recent interview, Secretary of the Navy Daniels stated that his policy of providing schools for enlisted men and giving them every possible opportunity to perfect themselves in various lines of special work, together with resultant prospect of promotion to commissioned rank, has had a strong influence on enlistments in the service. For the first time since the Civil War the enlisted strength of the navy now exceeds 50,000 men.

The half dozen commonwealths mentioned above are not the only ones which have turned their attention to industrial education. Other States have commissions investigating the subject with a view to granting State aid, have completed investigations, already contribute to trade schools, have legislation pending, or have introduced industrial education courses into the curricula of their existing schools. The States which are taking, or have taken, one or more of these steps are Maine, Connecticut, Maryland, Washington, New Mexico, Michigan, Illinois and Rhode Island.—*American Review of Reviews*.

Rochester, N. Y., will build a new vocational high school at a cost of about \$92,000.

NEW YORK SCHOOL BOARD'S PLAN FOR TRADE SCHOOLS

Investigations Nearing Completion, and Recommendations Will Be Ready Soon

When the New York City schools reopen in September it is expected that a definite plan for the extension of trade schooling will be ready to be put into effect. Dean Herman Schneider of the College of Engineering of the University of Cincinnati and William Wirt, superintendent of schools in Gary, Ind., have been spending a part of the summer studying local industrial and school conditions with a view to presenting to the Board of Education and the city authorities suggestions as to how to devise and carry out a system of schooling for industry. They have not yet put their ideas into final form, but in a few weeks their reports will be ready for consideration.

It is expected that provision will be made for a department of industrial education as has been frequently proposed, which will have full charge of the trade and continuation schools and any co-operative system which may be devised. In addition it will conduct experiments in a number of schools with the Gary type of organization to work out a modification of that system suitable for this city.

No attempt is to be made to revolutionize the school system and methods in a short time. The change will be in the nature of evolution. As Mayor Mitchel said recently: "You cannot establish that kind of thing in six months or one year, but it will be running inside that time, although it will not be broad in its operation for some time. What can be done in Cincinnati can be done in New York, where the field is so much broader and better, besides which I think the disposition of men in industry here is very favorable toward this idea."

Mr. Mitchel said then that he had not sounded out any New York manufacturers as to having pupils from the schools work alternate weeks or fortnights in their plants, but he said:

"Where the plan has been tried it has worked so much to the advantage of industry and employers that they have been mighty glad to adopt it. It has also worked to the advantage of employees; it has increased the earning capacity of labor and tended generally to improve the conditions at the shops, and they have been glad to co-operate. Mr. Schneider secured

the entire sympathetic co-operation of the unions, so I do not see any difficulties in any direction except the hard work in financing—and I might add the beauty of the system is its comparatively small cost.”

BIG DEVELOPMENT OF TRADE SCHOOLING IN NEW YORK CITY

**Classes in Hotels and Factories, School of Industrial Art, and
Classes in Department Stores New Features That
Were Successful—Big Extensions Planned
for Next Year—More Classes in
Shops and Factories**

BY TRISTRAM WALKER METCALFE

New York City is no longer lagging behind in the movement for industrial education. The school year was notable for a number of innovations, so successful as experiments as to warrant large extensions this fall. A group of chambermaids, all foreigners, at the Hotel Astor studied English in a class conducted by the Board of Education at the hotel. In two schools prevocational courses were tried as experiments for children in the last two years of the elementary school course. Day classes were inaugurated for foreigners who work at night in order that they might learn English. Continuation classes were opened in a number of department stores, and classes were conducted in factories for the workers there. In addition an evening school of industrial art was conducted with success and the number of trade schools increased. Success was possible because of the ready co-operation of employers.

This fall the number of hotel and department store classes will be increased, another trade school will be added, and more schools permitted to experiment with prevocational classes. It is not at all unlikely that an all-day school for department store employees will be opened.

In the vacation schools of Buffalo last year nearly 1,500 children took advantage of the instructions during the hot weather to advance in some one of their subjects or to continue work in which they fell behind during the school year. This year's attendance was much larger.

FOR VOCATIONAL TEACHING

Commission Holds that Natural Resources Would Be Conserved and Developed, Wage-Earning Increased, and Growing Demand for Trained Workers Met

According to the report of the Commission on National Aid for Vocational Education, appointed by the President, and of which Senator Hoke Smith was chairman, of more than 25,000,000 workers in agriculture and industry, less than one per cent. have had adequate preparation for their jobs. "Millions of persons between the age of fourteen and eighteen years," the report continues, "are not in school, having left to enter the ranks of the breadwinners. About half of these are children under sixteen years of age, the large majority of whom left school before completing their elementary education and are handicapped by lack of schooling, either for successful wage-earning or for intelligent citizenship.

"As a solution of the problem confronting the nation, vocational training is needed to conserve and develop our natural resources, to prevent waste of human labor, to provide a substitute for the old apprenticeship, to increase wage-earning power, and to meet the increasing demand for trained workers.

"To stimulate the movement for vocational education, the Commission recommends the distribution of national grants among the States. In its bill to Congress it provides for an appropriation of \$1,500,000 for 1915, to be increased yearly thereafter, according to a graduated scale, until the maximum annual appropriation of \$7,000,000 is reached in 1924. This money is to be used under certain conditions for the training of teachers for vocational subjects and for the paying of salaries of vocational teachers.

"Six reasons why the Federal Government should distribute these national grants are: To make the work of vocational training possible in those States and localities already burdened with the task of meeting the requirements for general education; to help the States, with their widely varying resources, bear the burden of giving vocational education as a national service; to equalize among the States the task of preparing workers whose mobility in moving regularly from place to place is increasing,

making their training for a life work a national as well as a State duty and problem.

"To secure national assistance in solving a problem too large to work out extensively and permanently, save by the whole nation; to give interest and prestige in the States to the work of preparing our young people for efficiency in useful and productive service; to secure expert information from the representatives of the national Government bringing to bear a country-wide knowledge and viewpoint which will put the work of the States on a scientific and businesslike basis."

GENERAL EDUCATIONAL NOTES

A trade school for girls, where dressmaking, millinery, and the making of white goods will be taught, has been opened in the Educational Alliance Building, East Broadway and Jefferson Street, New York. Miss Sarah Elkus, the originator of the project, has supervision over the school. The course of instruction lasts six weeks and 145 girls have been enrolled. They are either immigrants or daughters of immigrants. There is demand for skilled labor in the dress industries and manufacturers pay as high as \$7 to \$9 a week for trained girls. If the girls learn the trade in the factory they can earn only \$3 as beginners. It is planned to put the girls in factories at the highest prevailing wages.

Twelve additional shops for manual training will be established in as many public schools by the board of education of Philadelphia.

The New York Board of Education expects to open twenty-one new public school buildings in the various boroughs in September. They will have a seating capacity of 12,727 pupils.

From present indications an appropriation of approximately \$5,000,000 will be granted to the New York Board of Education for the erection of new school buildings in 1915 by the Board of Estimate and Apportionment.

A thorough investigation of the entire question of school superintendency will be made by a committee of representative

educators to be chosen by President Robert J. Aley, of the National Council of Education, an auxiliary of the National Education Association. The committee will report in 1916.

The practical arts class for boys, established as something of an experiment at the Chestnut Street grammar school in Springfield, Mass., last September, has closed its first year of work with results attained that more than justify its continuation, says the *Daily Republican*. Many people have no doubt heard vaguely of this class, which is something new for Springfield and is not very old anywhere, but few understand exactly what it is. Briefly, it is a prevocational school for boys above the sixth grade and it has been established with a twofold purpose. First, it is intended to give the boy a contact with several trades so that he may "find himself" or discover his aptitude for some particular craft and so make an intelligent choice of a vocation through the variety of experience offered. Second, it is intended to vitalize the regular academic school work by bringing into close relation the boy's studies and what he does with his hands. In both these purposes the class is succeeding admirably.

Bids were received at a meeting of the trustees of the Long Island State School of Agriculture for the proposed central heating and lighting, water supply and sewage disposal plants. The total of all the bids is \$289,402. Work will be pushed at once on all the work, and it is expected to have it completed before winter.

A change in the policy of the College of the City of New York, away from academic education into the broad field of business training, is now necessary, Mayor Mitchel declared in announcing the reappointment of James W. Hyde as a trustee of the institution.

A course in salesmanship for high school boys has been inaugurated by the Edison Electric Illuminating Company of Boston. In its announcement the company explains that it has positions during the summer months for boys who have completed their junior year. Applicants who make good will be given permanent positions at the end of their senior year.

The three richest agricultural counties in the United States are: Lancaster, Pa., first; Los Angeles, Cal., second; McLean, Ill., third. Lancaster shows a return on its invested valuation of 25 per cent—a sizeable profit in any business!

Announcement of the courses in the school of mechanical engineering, which is to be established at the University of Texas this fall, shows quite an extension of the technical training which is now possible to get at the State University. This new department will begin its work headed by one of the most competent professors of mechanical engineering in the country.

That the success in interesting business firms and manufacturers in the vocational school opened at School No. 1, Fayette and Greene streets, may ultimately lead to the establishment of a permanent school of this kind, where young toilers may be educated along the lines of their adopted occupation, is an idea under consideration by the school authorities of Baltimore.

The paramount problems in the world of learning under the direction of public officials were discussed at the National Educational Convention and in virtually every subject Philadelphia can answer that something has already been done along the line suggested and in others that recommendations are now in the hands of the Board of Education on the subject, says the *Public Ledger*. The four most important of these questions are: the establishment of vocational education systems, equalization of the salaries of men and women teachers, readjustment of the school courses that three instead of two public educational units can be realized in twelve years and the establishment of continuation schools for the education of the child who is forced into industry before his or her school life is complete.

Lack of education, according to Edwin R. Wright, president of a Chicago Typographical Union, and formerly president of the Illinois State Federation of Labor, is one of the factors that make workers discontented. Men who are handicapped by lack of schooling, he said, do not realize that that handicap prevents them from earning better salaries, and they are discontented when they see other men rise above them.